

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE 1	OF PAGES 3
2. AMENDMENT/MODIFICATION NO. 001		3. EFFECTIVE DATE 06 March 2007		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)
6. ISSUED BY FEDERAL AVIATION ADMINISTRATION ACQUISITION MGMT BR, AAL059 222 WEST 7TH AVE, #14 ANCHORAGE, AK 99513-7587				7. ADMINISTERED BY (If other than Item 6) SAME AS BLOCK 6		
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				<input checked="" type="checkbox"/>	9A. AMENDMENT OF SOLICITATION NO. DTFAAL-07-R-00399	
				<input type="checkbox"/>	9B. DATED 2/26/07 (SEE ITEM 11)	
				<input type="checkbox"/>	10A. MODIFICATION OF CONTRACT/ORDER NO.	
				<input type="checkbox"/>	10B. DATED (SEE ITEM 13)	
*TO BE COMPLETED BY VENDOR IF NOT COMPLETE						
CODE		FACILITY CODE				

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer is ☐ extended ☒ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation as amended, by one of the following methods:

(a) By completing Item 8 and 15, and returning 1 copies of the amendment; (b) acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hours and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

<input type="checkbox"/>	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT/ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14.
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
<input type="checkbox"/>	D. OTHER (Specify type of modification and authority)

E. **IMPORTANT:** Contractor ☐ is not ☐ is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

PROJECT: SUPPLY 30 FT. AND 60FT. GALVANIZED SELF-SUPPORTING TOWERS, FAA, NOME AND NIKOLSKI, ALASKA

The purpose of this modification is to replace Page 2, Supplies/Services & Price/Cost, include an additional Attachment for Technical Exposure Information, and amend Pages 3, 4 & 6 of the solicitation.

Continued- Page 2

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
		NANCY A. ECKROTH	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY (Signature of Contracting Officer)	

1.) Part I – Section B, Supplies/Services & Price/Cost, Page 2

Replace - Page 2 with the attached Amendment 001, Page 2, Supplies/Services & Price/Cost Sheet.

2.) Part I – Section C, Scope of Work, Page 3

Clarification: Page 3, below “0.25 in ice loading” add:

Exposure D

Topographic Category 1

Structure Class II

3.) Part I – Section C, Scope of Work, Page 4

Clarificaton: below “0.25 in ice loading” add:

Exposure C

Topographic Category 3-Contract Line Item 0003

Topographic Category 1-Contract Line Item 0002

Structure Class I

4.) Part I – Section F, Deliveries or Performance, Page 6

Replace: Required Delivery Schedule with the following schedule:

REQUIRED DELIVERY SCHEDULE

ITEM NO.	QUANTITY	ON OR BEFORE*
<u>0001</u>	<u>2</u>	<u>Nome, Alaska, 7/01/07</u>
<u>0002</u>	<u>1</u>	<u>Nome, Alaska , 7/01/07, Award</u> <u>is subject to availability of funding.</u>
<u>0003</u>	<u>1</u>	<u>Nikolski, Alaska, 6/01/07, Award</u> <u>is subject to availability of funding.</u>

If an alternate delivery schedule is proposed below by the offeror, it cannot exceed the Government’s required delivery date by more than 30 days for the Nikolsi 30 Ft. tower, and 60 days for the Nome 60 Ft. towers. The Government reserves the right to award under either the required delivery schedule or the proposed delivery schedule based on the best value offered to the Government. If the offeror proposes no other delivery schedule, the required delivery schedule specified will apply.

5.) Part III – Section J, List of Attachments, Page 16

Include: Attachment 2, ANSI/TIA-222-G specifications.

PART I - SECTION B
SUPPLIES/SERVICES & PRICE/COST

Contract				
Line Item	Quantity	Description	Unit/Each	Total
0001	2 Each	60 Foot Galvanized Self-Supporting Tower FOB FAA Site, Nome, Alaska	\$ _____	\$ _____
OPTION 1 (SUBJECT TO AVAILABILITY OF FUNDING)				
0002	1 Each	60 Foot Galvanized Self-Supporting Tower FOB FAA Site, Nome, Alaska	\$ _____	\$ _____
0003	1 Each	30 Foot Galvanized Self-Supporting Tower FOB FAA Site, Nikolski, Alaska.	\$ _____	\$ _____

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5. A topographic category and topographic factor, K_{zt} , shall be determined in accordance with 2.6.6.
6. A gust effect factor, G_h , shall be determined in accordance with 2.6.7.
7. The design ice thickness shall be escalated with height in accordance with 2.6.8.
8. The design wind force shall be determined in accordance with 2.6.9.

2.6.4 Basic Wind Speed and Design Ice Thickness

The basic wind speed without ice, the basic wind speed with ice and the design ice thickness shall be as given in Annex B except as provided in 2.6.4.1. Wind shall be considered to come from any horizontal direction. Ice shall be considered to be glaze ice.

Ice may be ignored for structures located in regions where the design ice thickness is less than or equal to 0.25 inches (6 mm).

2.6.4.1 Estimation of Basic Wind Speeds and Design Ice Thickness from Regional Climatic Data

For regions not included in Annex B, for the special wind or ice regions indicated in Annex B, and for sites where records indicate that in-cloud icing produces significant loads, extreme-value statistical-analysis procedures shall be used to establish design values consistent with this Standard from available climatic data accounting for the length of record, sampling error, averaging time, anemometer height, data quality, and terrain exposure.

2.6.5 Exposure Categories

2.6.5.1 General

An exposure category that adequately reflects the characteristics of ground surface irregularities at the site shall be determined. Account shall be taken of variations in ground surface roughness that arise from natural topography and vegetation as well as from constructed features. The exposure category for a structure shall be assessed as being one of the following:

1. **Exposure B:** Urban and suburban areas, wooded areas, or other terrain with numerous closely spaced obstructions having the size of single-family dwellings or larger. Use of this exposure shall be limited to those areas for which terrain representative of Exposure B surrounds the structure in all directions for a distance of at least 2,630 ft [800 m] or ten times the height of the structure, whichever is greater.
2. **Exposure C:** Open terrain with scattered obstructions having heights generally less than 30 ft [9.1 m]. This category includes flat, open country, grasslands and shorelines in hurricane prone regions.
3. **Exposure D:** Flat, unobstructed shorelines exposed to wind flowing over open water (excluding shorelines in hurricane prone regions) for a distance of at least 1 mile [1.61 km]. Shorelines in Exposure D include inland waterways, lakes and non-hurricane coastal areas. Exposure D extends inland a distance of 660 ft [200 m] or ten times the height of the structure, whichever is greater. Smooth mud flats, salt flats and other similar terrain shall be considered as Exposure D.

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2.6.5.2 Velocity Pressure Coefficient

Based on the exposure category determined in 2.6.5.1, a velocity pressure coefficient (K_z) shall be determined as follows:

$$K_z = 2.01(z/z_g)^{2/\alpha}$$

$$K_{zmin} \leq K_z \leq 2.01$$

where:

z = height above ground level at the base of the structure

z_g , α and K_{zmin} are tabulated in Table 2-4

2.6.6 Topographic Effects

2.6.6.1 Wind Speed-Up Over Hills, Ridges and Escarpments

Wind speed-up effects at isolated hills, ridges and escarpments constituting abrupt changes in the general topography, located in any exposure category, shall be included in the calculation of design wind loads under the following conditions:

1. The hill, ridge or escarpment is isolated and unobstructed by other similar topographic features of comparable height for a radius of 2 miles [3.22 km] measured horizontally from the point at which the height of the hill, ridge or escarpment is determined, and
2. The hill, ridge or escarpment protrudes by a factor of two or more above the average height of the surrounding terrain features within a 2 mile [3.22 km] radius, and
3. The slope (vertical to horizontal ratio) of the topographic feature exceeds 0.10, and
4. The height of the topographic feature is greater than or equal to 15 ft [4.57 m] for exposures C and D and 60 ft [18 m] for exposure B.

2.6.6.2 Topographic Categories

The topographic category for a structure shall be assessed as being one of the following:

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1. **Category 1:** No abrupt changes in general topography, e.g. flat or rolling terrain, no wind speed-up consideration shall be required.
 2. **Category 2:** Structures located at or near the crest of an escarpment. Wind speed-up shall be considered to occur in all directions. Structures located vertically on the lower half of an escarpment or horizontally beyond 8 times the height of the escarpment from its crest, shall be permitted to be considered as Topographic Category 1.
 3. **Category 3:** Structures located in the upper half of a hill. Wind speed-up shall be considered to occur in all directions. Structures located vertically on the lower half of a hill shall be permitted to be considered as Topographic Category 1.
 4. **Category 4:** Structures located in the upper half of a ridge. Wind speed-up shall be considered to occur in all directions. Structures located vertically on the lower half of a ridge shall be permitted to be considered as Topographic Category 1.
- OME RCHB

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5. Category 5: Wind speed-up criteria based on a site-specific investigation.

2.6.6.3 Structures Supported on Buildings or Other Structures

Wind speed-up shall not be used to account for the increased wind loads required due to height for structures supported on buildings or other structures. The height, z , above ground level shall be referenced to the ground level of the building or other supporting structure.

2.6.6.4 Topographic Factor

The wind speed-up effect shall be included in the calculation of design wind loads by using the factor K_{zt} :

$$K_{zt} = \left[1 + \frac{K_e K_t}{K_h} \right]^2$$

where:

K_h = height reduction factor given by the following equation:

$$= e^{\left(\frac{f \cdot z}{H} \right)}$$

e = natural logarithmic base = 2.718

K_e = terrain constant given in Table 2-4

K_t = topographic constant given in Table 2-5

f = height attenuation factor given in Table 2-5

z = height above ground level at the base of the structure

H = height of crest above surrounding terrain

$K_{zt} = 1.0$ for topographic category 1. For topographic category 5, K_{zt} shall be based on recognized published literature or research findings.

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Table 2-1
Classification of Structures

Description of Structure	Class
Structures that due to height, use or location represent a low hazard to human life and damage to property in the event of failure and/or used for services that are optional and/or where a delay in returning the services would be acceptable.	I
Structures that due to height, use or location represent a substantial hazard to human life and/or damage to property in the event of failure and/or used for services that may be provided by other means.	II
Structures that due to height, use or location represent a high hazard to human life and/or damage to property in the event of failure and/or used primarily for essential communications.	III

Table 2-2
Wind Direction Probability Factor

Structure Type	Wind Direction Probability Factor, Kd
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95

Table 2-3
Importance Factors

Structure Class	Wind Load Without Ice	Wind Load With Ice	Ice Thickness	Earthquake
I	0.87	N/A	N/A	N/A
II	1.00	1.00	1.00	1.00
III	1.15	1.00	1.25	1.50
Note: Ice and earthquake loads do not apply to Class I structures				